

Listing of Claims

1. (previously presented) A computer mouse, comprising a housing and a rotary dial positioned relative to an external surface of the housing, the housing providing a platform for sliding the mouse along a surface in order to move a cursor or pointer on a display screen of a computer system, the rotary dial rotating around an axis in order to implement a control function in the computer system, the rotary dial rotating within a plane that is substantially parallel to the external surface of the housing, the rotary dial having an engageable face for allowing a user to facilitate rotation of the rotary dial, the engageable face being completely exposed to the user.
2. (previously presented) The computer mouse as recited in claim 1 wherein the control function is associated with performing an action on a display screen.
3. (previously presented) The computer mouse as recited in claim 2 wherein the control function corresponds to a scrolling feature.
4. (previously presented) The computer mouse as recited in claim 1 wherein the control function is used to control various applications associated with a computer system.
5. Cancelled
6. Cancelled
7. Cancelled
8. (previously presented) The computer mouse as recited in claim 7 wherein the engageable face is substantially parallel to the external surface of the housing.
9. Cancelled
10. Cancelled
11. (previously presented) The computer mouse as recited in claim 1 wherein the rotary dial is tangentially accessible to a user from the entire circumference of the rotary dial.

12. (original) A mouse for moving a cursor or pointer on a display screen, comprising:  
a mouse housing; and  
a disk coupled to the mouse housing and rotatable about an axis, the disk being configured to facilitate a control function on the display screen, the disk having a touchable surface for rotating the disk about the axis, the touchable surface being completely accessible to a finger of the user such that the disk can be continuously rotated by a simple swirling motion of the finger.
13. (original) The mouse as recited in claim 12 wherein the control function is associated with performing an action on the display screen.
14. (original) The mouse as recited in claim 13 wherein the control function corresponds to a scrolling feature.
15. (original) The mouse as recited in claim 14 wherein the scrolling feature allows a user to move displayed data across a viewing area on the display screen so that a new set of displayed data is brought into view in the viewing area.
16. (previously presented) The mouse as recited in claim 15 wherein the rotation of the disk causes the displayed data to move across the viewing area of the display screen.
17. (original) The mouse as recited in claim 16 wherein the displayed data is moved vertically or horizontally on the display screen.
18. (original) The mouse as recited in claim 17 wherein side to side manipulation of the disk corresponds to horizontal scrolling, and wherein forwards and backwards manipulation of the disk corresponds to vertical scrolling.
19. (original) The computer mouse as recited in claim 12 wherein the mouse housing provides a clicking action for performing an action on a display screen.
20. (previously presented) A computer mouse, comprising:

a mouse housing that provides a structure for moving the computer mouse along a surface and for gripping the mouse for movement thereof;

a position detection mechanism operatively supported by the mouse housing, the position detection mechanism being configured for tracking the position of the mouse as its moved along the surface;

a disk positioned relative to an external surface of the mouse housing, the disk being rotatably coupled to the mouse housing about an axis that is normal to the external surface of the mouse housing, the disk having a user input receiving surface for facilitating movements thereof about the axis, and

an encoder for monitoring the rotation of the disk about the axis.

21. (previously presented) The computer mouse as recited in claim 20 wherein a substantial portion of the user input receiving surface is exposed outside of the mouse housing.

22. (previously presented) The computer mouse as recited in claim 20 wherein the user input receiving surface is completely accessible to a finger of the user.

23. (previously presented) The computer mouse as recited in claim 20 wherein the disk is configured to facilitate a control function.

24. (original) The computer mouse as recited in claim 22 wherein the control function corresponds to a scrolling feature.

25. (previously presented) The computer mouse as recited in claim 20 wherein the external surface corresponds to a top of the mouse housing.

26. (previously presented) The computer mouse as recited in claim 20 wherein the external surface corresponds to a side of the mouse housing.

27. (previously presented) The computer mouse as recited in claim 20 wherein the user input receiving surface of the disk is substantially flush with a top external surface of the mouse housing.

28. (previously presented) The computer mouse as recited in claim 20 wherein the plane of rotation of the disk is parallel to a top external surface of the mouse housing.
29. (previously presented) The computer mouse as recited in claim 20 wherein the disk includes tactile elements for increasing the feel of the disk, the tactile elements including bumps extending from the user input receiving surface or voids representing removed sections of the user input receiving surface.
30. Cancelled.
31. (original) The computer mouse as recited in claim 20 wherein the encoder is a mechanical encoder or an optical encoder.
32. (previously presented) The computer mouse as recited in claim 20 wherein the mouse housing provides a clicking action for performing an action on a display screen.
33. (previously presented) The computer mouse as recited in claim 32 wherein the clicking action is actuated in a direction normal to the mouse housing.
34. (previously presented) The computer mouse as recited in claim 33 wherein the mouse housing includes a base coupled to a body, the base being configured to make moving contact with the surface when the computer mouse is moved by the user.
35. (original) The computer mouse as recited in claim 34 wherein the axis is obliquely positioned relative to the base.
36. Cancelled
37. (original) The computer mouse as recited in claim 20 further including a button for allowing a user to make a selection on the display.
38. (previously presented) The computer mouse as recited in claim 1 wherein the engageable face of the rotary dial is substantially flush with the external surface of the housing.

39. (previously presented) The computer mouse as recited in claim 34 wherein the body pivots relative to the base in order to generate the clicking action.
40. (previously presented) The computer mouse as recited in claim 39 wherein the plane of rotation is orthogonal to the direction of the clicking action.
41. (previously presented) The computer mouse as recited in claim 20 wherein the disk is configured to sit in the mouse housing.
42. (previously presented) The computer mouse as recited in claim 20 wherein the disk is recessed below, level with or extend above the external surface of the mouse housing
43. (previously presented) The computer mouse as recited in claim 31 wherein the disk is attached to a shaft that rotates within a shaft housing attached to the mouse housing and wherein the optical encoder includes a light source, a light sensor and an optical encoding disc having a plurality of slots separated by openings therebetween, the slots and openings breaking the beam of light coming from the light source so as to produce pulses of light that are picked up by the light sensor, the optical encoding disc being an integral part of the disk or a separate portion that is attached to the shaft.